REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application is made obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIM 21 UNDER 35 U.S.C. § 103

Claim 21 stands rejected as being unpatentable over the Filepp et al. patent (United States Patent No. 5,758,072, issued May 26, 1998, hereinafter "Filepp") in view of the Elderton et al. patent (United States Patent No. 6,477,572, issued November 5, 2002, hereinafter "Elderton") and the Laiho et al. patent (United States Patent No. 6,097,942, issued August 1, 2000, hereinafter "Laiho") and further in view of the Curtis et al. patent (United States Patent No. 5,774,689, issued June 30, 1998, hereinafter "Curtis"). In response, the Applicants have amended independent claim 21 in order to more clearly recite aspects of the present invention.

In particular, the Applicants respectfully submit that Filepp, Elderton, Laiho, and Curtis, singly or in any permissible combination, fail to teach, show or suggest the novel invention of mapping network resources based on network-level characteristics to produce a network map, as positively claimed in the Applicants' independent claim 21.

The Examiner acknowledges that "Filepp et al. does not specifically disclose mapping said network resources based on said network characteristics to produce network map information" (Office Action, Page 4). The Examiner submits, however, that the admitted gap in the teachings of Filepp is bridged by Elderton. The Applicants respectfully disagree.

By contrast, Elderton teaches generating a topology map based on node-level attributes. For example, Elderton discloses building "a topology map that includes at least one icon representing network objects that have the user-selected attribute value for the attribute" (Elderton, Abstract, emphasis added). Elderton goes on to disclose

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that an "object" is a term used to refer to "a network resource located <u>at a node</u>," and that an "'attribute' is a given <u>characteristic of the node</u> ..." (Elderton, column 6, lines 17-21, emphasis added). Thus, the attributes on which Elderton bases the topology map are <u>local or node-level attributes</u> (such as operating system type, available disk space, or the like), and not <u>global or network-level attributes</u> (such as network delay, network forwarding capacity, or the like), as claimed by the Applicants.

Laiho and Curtis likewise fail to teach or suggest these features. Thus, Filepp, Elderton, Laiho, and Curtis fail, singly or in any permissible combination, to teach all of the claimed limitations of the Applicants' claim 21. Specifically, Applicants' claim 21 recites:

> 21.   A method for dynamic grouping of clients to support scalable group communications in interactive applications, comprising:
> identifying an application having an application space;
> identifying a plurality of clients of said application such that each of said plurality of clients has a communication interest with said application;
> identifying a communication network that handles communications between said plurality of clients and said application and that includes network resources with network-level characteristics;
> <u>mapping said network resources based on said network-level characteristics to produce network map information</u>;
> partitioning said application space into a plurality of communication interest partitions, each partition of which represents a communication interest of at least one of said plurality of clients;
> indexing the partitions and said network map information to form a multi-type attribute index structure into one or more client groupings;
> grouping said plurality of clients based on their communication interest and on said multi-type attribute index structure; and
> forming a hierarchical structure that includes a parent node and at least one control node for communicating data to said plurality of clients such that said hierarchical structure is based on said attribute index structure and on the client groupings, wherein said parent node establishes a communication overlay that directs communications between said plurality of clients and said application, and said parent node produces a membership list comprising one or more of said plurality of clients having an interest in at least one of the plurality of communication interest partitions, wherein said membership list maps into one or more communication groups to enable distributed communication between said plurality of clients and said application. (Emphasis added)

As discussed above, Filepp in view of Elderton and Laiho and further in view of Curtis simply does not teach, show or suggest all of the claimed limitations of the Applicants' claim 21. As such, the Applicants submit that claim 21 is not made obvious by the teachings of Filepp in view of Elderton and Laiho and further in view of Curtis. Therefore, the Applicants respectfully submit that claim 21 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

II. NEW CLAIMS

The Applicants have added new claim 22, which depends from independent claim 21 and recites at least all of the features recited in independent claim 21. Thus, for at least the reasons discussed above with respect to the rejection of independent claim 21, the Applicants respectfully submit that claim 22 is patentable.

III. CONCLUSION

Thus, the Applicants submit that all of the presented claims fully satisfy the requirements of 35 U.S.C. §103. Consequently, the Applicants believe that all of the presented claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 842-8110 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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Date

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